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Analyzing powers of the proton-deuteron break-up reaction at large proton scattering angles measured with BINA at 135 MeV

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Propositions

belonging to the PhD thesis

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Mohammad Taqy Bayat

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1. For the polarization observables, the discrepancy between data and theory predictions with currently available 3NF models demonstrates that spin-dependent parts of the 3NFs are not completely understood.
2. A break-up reaction has a very rich phase space in comparison to the elastic reaction for the investigations of the behavior of 3NF effects.
3. The effects of Coulomb and the Δ resonance in many kinematical configurations of proton-deuteron break-up are small. Coulomb effects are even negligible for the configurations presented in this thesis. The addition of the Δ resonance in the calculations makes the agreement with the experiments even worse in some cases.
4. The behavior of the discrepancies observed between data and theory predictions depends on the azimuthal opening angle and the relative energy of the outgoing protons.
5. Discipline, patience and perseverance are the most important elements for the path from dreams to success.
6. Our lifetime is limited. So, we should be grateful for all the moments that we have. Don't spend much time looking back at what happened. Just remember it and move forward.
7. "People were created to be loved. Things were created to be used. The reason why the world is in chaos, is because things are being loved and people are being used" (John Green).